directed to a method for simultaneous amplification of multiple DNA sequences by multiplex PCR. Claims 7, 8 and 9 are directed to a method for detecting multiplex PCR amplification products. Claims 10, 11 and 12 are directed to a method for high-throughput genetic screening. Claims 14, 15 and 16 are directed to a method to detect multiple amplified target DNA sequences. Claims 17 and 18 are directed to multiplex PCR amplified target sequences.

Amendments

Claim 1 has been amended for clarity. Support is found at page 3, line 17 to page 4, line 2; page 4, line 5; page 5, line 20 to page 5, line 5; page 8, line 12 to page 9, line 13; page 10, lines 7-19; page 14, lines 3-8; page 16, lines 1-2.

Claims 2-4 have been amended to use consistent language relating to claim dependency and to use language which has proper antecedent basis. Support is found at page 4, line 5; page 5, lines 1-2; page 8, lines 19-20; page 12, line 15.

Claim 5 has been amended for clarity. Support is found at page 3, line 17 to page 4, line 2; page 4, line 20 to page 5, line 5; page 8, line 12 to page 9, line 13; page 10, lines 7-19; page 14, lines 3-8; page 16, lines 1-2.

Claim 6 has been amended for clarity. Support is found at page 3, line 17 to page 4, line 5; page 8, lines 19-22, page 11, lines 15-17; page 13, lines 4-12; page 14, lines 6-8 and 10-18; page 16, lines 1-2.

Claim 7 has been amended for clarity. Support is found at page 3, lines 20-21; page 4, lines 9-15; page 8, lines 19-22; page 11, line 18 to page 12, line 2; page 13, lines 13-17; page 14, lines 6-8 and 19-23, page 15, lines 1-22; page 16, lines 1-2.

Claims 8 and 9 have been amended to use consistent language relating to claim dependency and to use language which has proper antecedent basis. Support is found at page 4, lines 12-15 and 17-18; page 9, lines 14-20; page 11, lines 19-21; page 14, lines 6-8, 10 to page 16, line 5.

Claim 10 has been amended for clarity. Support is found at page 3, lines 20-21; page 4, lines 16-20; page 8, lines 19-22; page 14, lines 6-8.

Claims 11 and 12 have been amended to use consistent language relating to claim dependency and to use language which has proper antecedent basis. Support is found at page

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4, lines 12-15 and 17-18; page 9, lines 14-20; page 11, lines 19-21; page 14, line 10 to page 16, line 5.

Claim 13 has been amended for clarity. Support is found at page 14, line 10 to page 16, line 5.

Claim 14 has been amended for clarity. Support is found at page 3, lines 20-21; page 4, line 5; page 8, lines 19-22; page 14, line 6 to page 16, line 5.

Claims 15 and 16 have been amended to use consistent language relating to claim dependency and to use language which has proper antecedent basis. Support is found at page 14, line 10 to page 16, line 5.

Claims 17 and 18 have been amended to place them in independent form. Support can be found at page 3, lines 19-21;page 4, line 5; page 8, line 19-22; page 14, line 10 to page 15, line 5; page 16, lines 1-2.

The claims, as amended, do not raise new issues or require a new search. The majority of the amendments were in fact presented in the Response to the Advisory Action mailed December 5, 1997. They were not presented earlier because the need for the amendments was not brought to the Applicant's attention until that time. The remaining amendments to Claims 17 and 18 to recite, "free of spurious amplification products", were not proposed earlier because the need for these amendments was not brought to the Applicant's attention until the Second Advisory Action mailed December 23, 1997. Applicants believe that the amendments put the claims in form for allowance or in better form for appeal because they distinctly describe the subject matter of the claimed invention and the unexpected advantages the claimed invention provides over the prior art.

In Paragraph 1 of the Second Advisory Action mailed December 23, 1997, the limitation "a common sequence...has no homology with any one of said multiple target DNA sequence or its complement" and "primer-primer formation...are prevented" were not entered on the basis that they required further consideration and search and raised the issue of new matter, as support was not pointed out in the specification. In the amendments submitted herein, no new search is needed because the limitation "primer-primer formation" has been

removed and support for the amendments, "a common sequence...has no homology with any one of said multiple target DNA sequences or its complement" and "synthesis...are prevented", has been pointed out in the specification.

No new matter is added by the amendments and the Examiner is respectfully requested to enter them.

## CONCLUSION

In view of the above amendments and remarks, it is submitted that this application is now ready for allowance. Early notice to that effect is solicited. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (650) 328-4400.

Respectfully submitted,

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